

22. The semiconductor device in accordance with Claim 21, wherein a width of said intermediate area of said back surface is greater than said second distance.

23. The semiconductor device in accordance with Claim 22, wherein said first distance is less than said second distance.--

REMARKS

Reconsideration and allowance in view of the foregoing amendments and the following remarks are respectfully requested.

By this amendment, editorial changes have been made throughout the specification of the present application to correct grammatical errors and other informalities.

Pending Claims 1-14 have been cancelled without prejudice or disclaimer, and original Claims 15-19 were not elected and have therefore been withdrawn from consideration. New Claims 20-23 are hereby submitted for examination. Favorable consideration is respectfully requested.

The cancellation of elected Claims 1-14 renders moot the objection set forth on page 2 of the Office Action, the rejection of Claim 5 under 35 U.S.C. §112, first paragraph,

and the rejection of Claims 1-14 under 35 U.S.C. §103(a). Applicants respectfully request that these rejections be withdrawn.

New Claims 20-23 do not include the informalities cited on page 2 of the Office Action, and further enable one skilled in the art to make and/or use the invention to thereby overcome the rejection under 35 U.S.C. §112, first paragraph.

With regards to the rejection of Claims 1-14 under 35 U.S.C. §103(a) over Lan et al. in view of Bond et al., it is once again submitted that the present rejection has been rendered moot by the cancellation of Claims 1-14, and therefore Applicants request that this rejection be withdrawn. However, in the alternative, it is respectfully submitted that new Claims 20-23 are patentably distinguishable from the proposed combination of references for the reasons that follow.

In particular, the claimed invention relates to a novel semiconductor device having a first bump unit, comprising a plurality of heat-radiating bumps, formed in a central area of a back surface of the semiconductor device, that radiate heat from a central portion of the semiconductor device, and a second bump unit, comprising a plurality of connection

bumps, formed in a peripheral area of the back surface of the semiconductor device, for transmitting signals therefrom. The peripheral area surrounds the central portion of the back surface of the semiconductor device.

On the other hand, neither Lan et al. nor Bond et al. teach or suggest a first bump unit and a second bump unit disposed on a back surface of a semiconductor device, as in the claimed invention. Furthermore, neither Lan et al. nor Bond et al. teach or suggest the back surface of a semiconductor device having a central portion wherein the first bump unit is disposed and a peripheral area surrounding the central portion wherein the second bump unit is disposed. Thus, neither reference teaches or suggests the central portion of a back surface of the semiconductor device which radiates heat from the semiconductor device as in the claimed invention. Accordingly, it is respectfully submitted that neither Lan et al. nor Bond et al., either singularly or in combination thereof, teach or suggest the claimed invention as recited in newly submitted Claims 20-23, and therefore for the reasons set forth above, it is respectfully submitted that the rejection under 35 U.S.C. §103(a) should be withdrawn.

The remaining references of record have been studied. It is respectfully submitted that they do not compensate for

the deficiencies utilized in rejecting original Claims 1-14,
as applied to new Claims 20-23.


All objections and rejections having been addressed, it
is respectfully submitted that the present application is in
condition for allowance, and a Notice to that effect is
earnestly solicited.

A petition for extension of time is filed herewith.
A check in payment of the fee for the extension is also
enclosed. If the check is missing or made out for an
insufficient amount, please charge deposit account,
No. 18-0002, and send a notification accordingly.

Respectfully submitted,

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